

Research Product 98-32

Development of Brigade Staff Tasks for the COBRAS II Brigade Staff Exercise

Daniel E. Deter, Roy C. Campbell, and Laura A. Ford Human Resources Research Organization

> Kathleen A. Quinkert U.S. Army Research Institute

> > 19980415 134

January 1998

Armored Forces Research Unit

U.S. Army Research Institute for the Behavioral and Social Sciences

Diffic OTIALITY INSTITUTED 8

Approved for public release; distribution is unlimited.

U.S. Army Research Institute for the Behavioral and Social Sciences

A Directorate of the U.S. Total Army Personnel Command

EDGAR M. JOHNSON Director

Research accomplished under contract for the Department of the Army

Human Resources Research Organization

Technical Review by

Franklin L. Moses Margaret S. Salter

NOTICES

FINAL DISPOSITION: This Research Product may be destroyed when it is no longer needed. Please do not return it to the U.S. Army Research Institute for the Behavioral and Social Sciences.

NOTE: This Research Product is not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

	REPORT DOCUMENTA	TION PAGE
1. REPORT DATE 1998, January	2. REPORT TYPE Final	3. DATES COVERED (from to) July 1996-March 1997
4. TITLE AND SUBTITLE Development of Brigade Staff Exercise	Tasks for the COBRAS II Brigade Staff	5a. CONTRACT OR GRANT NUMBER DASW01-94-D-0011 5b. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	obell, and Laura A. Ford (HumRRO);	0602785A 5c. PROJECT NUMBER A791 5d. TASK NUMBER 2228 5e. WORK UNIT NUMBER R05
7. PERFORMING ORGANIZATIO Human Resources Research Organization 66 Canal Center Plaza, Suite 400 Alexandria, VA 22314		8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING U.S. Army Research Institute ATTN: TAPC-ARI-IK 5001 Eisenhower Avenue	AGENCY NAME(S) AND ADDRESS(ES) for the Behavioral and Social Sciences	10. MONITOR ACRONYM ARI 11. MONITOR REPORT NUMBER
Alexandria, VA 22333-5600 12. DISTRIBUTION/AVAILABILITY	STATEMENT	Research Product 98-32
Approved for public release; d	listribution is unlimited.	

13. SUPPLEMENTARY NOTES

COR: Kathleen A. Quinkert

14. ABSTRACT (Maximum 200 words):

This research and development effort was to design simulation-based training for selected members of the staff of a conventionally equipped armored brigade. This included a detailed analysis of the performance requirements for the staff members. The resulting products were lists of task statements for the chosen training audience. These task lists support the staff exercise run in the Brigade/Battalion Battle Simulation (BBS) called Combined-Arms Operations at Brigade Level, Realistically Achieved Through Simulation (COBRAS II). They expand the task lists which were a product of an earlier effort--COBRAS I, accounting for additions to the training audience.

15. SUBJECT TERMS					
Brigade staff	Brigade/Battal	ion Battle Simulat	tion (BBS) F	XXITP	Task Analysis
COBRAS	Military Decis	sion Making Proce	ess (MDMP)	Brigade staff task	lists
SEC	URITY CLASSIFICA	TION OF	19. LIMITATION OF	20. NUMBER	21. RESPONSIBLE PERSON
16. REPORT	17. ABSTRACT	18. THIS PAGE	ABSTRACT	OF PAGES	(Name and Telephone Number)
Unclassified	Unclassified	Unclassified	Unlimited	86	Kathleen A. Quinkert, COR

Development of Brigade Staff Tasks for the COBRAS II Brigade Staff Exercise

Daniel E. Deter, Roy C. Campbell, and Laura A. Ford Human Resources Research Organization

Kathleen A. Quinkert U.S. Army Research Institute

Armored Forces Research Unit Barbara A. Black, Chief

U.S. Army Research Institute for the Behavioral and Social Sciences 5001 Eisenhower Avenue, Alexandria, Virginia 22333-5600

January 1998

Army Project Number 2026785A791

Education and Training Technology

Approved for public release; distribution is unlimited.



In 1994 the U.S. Army embarked on a widespread training effort known as the Force XXI Training Program to meet the challenges of decreasing resources and increasing performance expectations. In mid-year, a Memorandum of Agreement was signed between the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) and the U.S. Army Armor Center and Fort Knox (MG Larry Jordan, Commanding General) that established the virtual brigade training program (VBTP). As part of the VBTP, the ARI Armored Forces Research Unit at Fort Knox, the Directorate of Training and Doctrine Development-Force XXI, and Fort Knox joined forces to sponsor and conduct research and development of simulation-based training for the conventional mounted brigade staff. The work was performed under a project called *Combined Arms Operations at Brigade Level, Realistically Achieved Through Simulation* (COBRAS).

The training products developed under COBRAS were designed to provide practical experience for battle staffs at brigade level in a scenario-based tactical setting, facilitated by the use of simulation to generate tactical information and cues. Central to the development effort was an analysis of performance requirements encompassing the full spectrum of staff activities: planning, preparation, execution, and post-mission sustainment activities.

Initial analysis of performance requirements in existing documentation revealed that the performance specifications were not sufficiently detailed for brigade battle staffs. Significant gaps exist in the descriptions of the integration of activities across the planning and execution spectrum and across missions. The documented tasks, as represented primarily in the Mission Training Plan, provide a general overview of the type of activities performed by staff members. However, this source is not sufficiently detailed, nor does it focus on the continuous nature of staff activities. Therefore, a new effort of front end analysis was initiated as a part of the COBRAS project.

The preferred approach was to base the analysis on actual performance. Analyzing brigade staffs in action was not a viable choice because of restrictions on time, personnel, and availability of expertise. In response, a new approach was developed, the *Staff Performance Analysis* (SPA). The SPA is an event-driven, experiential approach to systematically explore occurrences as they are performed. In prior work, experienced roleplayers replicated the brigade staff in a controlled environment, performing mission-required activities. The SPA was conducted for three missions: movement to contact, area defense, and deliberate attack. The outcome of the analysis was an extensive list of staff tasks for a selected set of brigade staff officers. The tasks depict necessary behaviors, cues, interactions, and products. That product was described in a prior COBRAS publication.

This Research Product describes how a modification to the methodology was used to define tasks for an expanded set of brigade staff officers. It documents the process used to develop the additional tasks for the expanded training audience and adjusts the tasks of the original staff officers to reflect the presence of those additional staff officers. The work was performed on a follow-on project to COBRAS, known as COBRAS II.

The Research Product is intended for use by training designers and developers, as well as training program reviewers and proponents. It should help them understand the approach taken, and assess its potential applicability to other training programs requiring detailed task documentation. Further, it should help to assess the utility of tasks in this form for supporting structured, simulation-based training. Examples of the expanded task lists are included as an appendix.

ZITA M. SIMUTIS
Technical Director

DEVELOPMENT OF BRIGADE STAFF TASKS FOR THE COBRAS II BRIGADE STAFF EXERCISE

CONTENTS

	Page
Introduction	1
Overview Structured Training COBRAS Program Characteristics Analyzing Performance Requirements Modifying the Methodology for COBRAS II Performance Requirements	1 2 4
The Revised Brigade Staff Tasks	
Use and Evaluation of the COBRAS II Task Lists	7
Observations and Lessons Learned	7
Consistency with Existing Army Task Lists Task Lists as Surrogate Tactics, Techniques, and Procedures Evolving Doctrine	8
Summary and Conclusions	9
Areas for Future Work	9
REFERENCES	11
APPENDIX A. Sample COBRAS Brigade Staff Tasks	A-1
B. ACRONYMS and ABBREVIATIONS	B-1
LIST OF FIGURES	
Figure 1. The components of structured training	2
2. Selected training audience for the COBRAS brigade staff	4

DEVELOPMENT OF BRIGADE STAFF TASKS FOR THE COBRAS II BRIGADE STAFF EXERCISE

Introduction

Overview

Military forces of the twenty-first century will face challenges very different from those of the cold war years. New threats predominate, mission requirements are changing, force projection is replacing forward stationing of forces, new warfighting technology is transforming the battlefield, and troop ceilings are falling. Responding to these and other changes, the Army leadership has established a far-reaching program to prepare its forces for the future. The program is known as Force XXI (Sullivan, 1994), and it is heavily dependent on leveraging information age technologies.

A major Force XXI thrust, the Force XXI Training Program (FXXITP), is to update the Army's training doctrine and capabilities. The FXXITP capitalizes on simulation technologies to enhance training realism while containing costs. Among the FXXITP initiatives is the project effort known as *Combined Arms Operations at Brigade Level, Realistically Achieved through Simulation* (COBRAS). Contracted by the Armored Forces Research Unit of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI), FXXITP-COBRAS was a training research and development effort. The intent for the FXXITP-COBRAS project was to design and develop structured training packages for the commander and selected staff officers at the brigade level.

The first FXXITP-COBRAS work was followed by an expansion effort known as COBRAS II, which provided training support packages for a wider target audience within the brigade staff. Like FXXITP-COBRAS, the COBRAS II effort was focused on the development of structured training.

Structured Training

"Structured training" refers to systematically designed and developed training that focuses on predetermined objectives (see Figure 1). Brown (1993) defines structured training as the "... totality of training development, training support, and guidance for effective application/use within the unit or institution" (p. 2). The concept incorporates several key features, including a focus on selected critical tasks, provision of realistic scenario-based conditions, standardized exercise control and measurement procedures, and support of exercises by means of comprehensive training materials (Campbell, C., Deter, & Quinkert, in press). For the COBRAS¹ effort, this means the training is:

• Task-driven—focus on critical tasks in a planned sequence of performance that reinforces learning and builds proficiency through practice,

¹ Throughout this Research Product, "COBRAS" refers generically to the original FXXITP-COBRAS project and the COBRAS II project. Where the distinction between the two projects is significant, the appropriate project short name is used (COBRAS I or COBRAS II).

- Scenario-embedded—training environment of realistic scenarios and conditions,
- Standardized—conditions and cues stimulate performance and enable observation and evaluation of tasks, and
- Supported—training support packages (TSPs) that guide preparation for training, observation and coaching during implementation, and the preparation and delivery of feedback sessions.

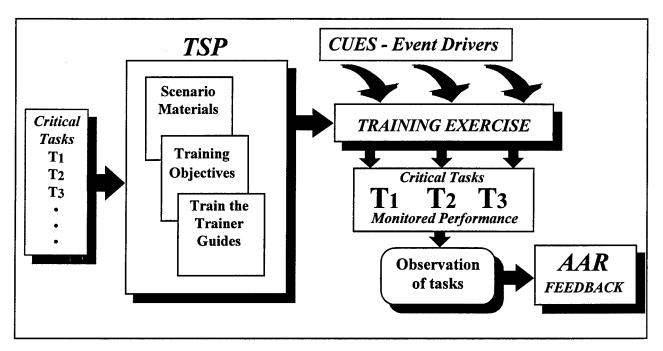


Figure 1. The components of structured training.

COBRAS Program Characteristics

The COBRAS training development efforts were part of the larger overall FXXITP. As a result, there were requirements for compatibility with the overall FXXITP plan for brigade level training, exportability, scenario, and training activities. Some of the requirements for the original COBRAS I work were unchanged for COBRAS II, while others were modified to satisfy the project objectives. Briefly, the design and development requirements included:

- Exportable. The COBRAS program is designed to be exported to and administered by user units at their home station and within the personnel and physical training resources found there. It is not intended to be used only at some central training facility. This requirement included the limitation that the training observers who would provide feedback on performance would also have to be locally available personnel. The requirement remained unchanged for COBRAS II.
- <u>Scenario</u>. COBRAS had to be compatible with the scenarios of earlier virtual training efforts that addressed lower echelon training for platoon through company and with an ongoing brigade staff training project which addressed the execution phase of the battle (described in Hoffman, Graves, Koger, Flynn, & Sever, 1995). It was deemed essential

at this point that the tactical setting and situation be congruent over all of the FXXITP projects. Thus, the mission, enemy, terrain and weather, troops and time (METT-T), for the three missions of movement to contact (MTC), area defense (AD), and deliberate attack (DATK), were essentially defined at the start of the COBRAS I analysis and (with exceptions for changes due to the expanded training audience) remained unchanged for COBRAS II.

Training Audience. The divisional brigade headquarters consists of over 80 people. Additionally, there are numerous other soldiers who are part of the divisional supporting slice and who operate in and about the brigade headquarters. As a limited staff exercise, there was no intent that the COBRAS program provide full headquarters training. Instead, COBRAS was designed to serve as stepping-stone training in the staff process. The first year's effort, COBRAS I, addressed the activities of the commander, the principal staff officers, and those specialty staff officers who represent division support in logistics, fire support, mobility/countermobility, and air defense. COBRAS II expanded that list to also include the military police, signal, intelligence and electronic warfare, chemical, and army aviation representatives.

This expansion resulted in a training audience of 16: commander, executive officer (XO), operations officer (S3), intelligence officer (S2), adjutant (S1), logistics officer (S4), brigade engineer (BDE ENGR), fire support officer (FSO), fire support coordinator (FSCOORD), air defense coordinator (ADCOORD), forward support battalion commander (FSB CDR), military police platoon leader (MP PLT LDR), signal officer (SIGO), military intelligence company commander (MI Co Cdr), assistant S-3/chemical officer (CHEMO), and army aviation liaison officer (AVN LNO).

These individuals and their relationship within the rest of the brigade staff are depicted in Figure 2.

• Training Activities. Previous virtual simulation exercise development activities had all concentrated on the execution portion of the mission. The requirement for the COBRAS training was that it be expanded beyond execution to include also the phases of planning, preparation, and post-execution activities. The training on the planning phase would include an opportunity to practice a deliberate decision-making process (DDMP) and a time constrained decision-making process, called in COBRAS a modified decision-making process (MDMP).²

3

² As the COBRAS efforts progressed, the Army's terminology for the various decision-making processes continued to evolve. The Army's decision was that there is one military decision-making process, and it is the deliberate decision-making process. There are no doctrinally prescribed abbreviations or accelerations of that process. It is still the military deliberate decision-making process whether it is done with adequate planning time, or has to be done within a time constrained planning window. The timing of that guidance precluded changing the terminology selected for COBRAS I and II. Therefore, throughout the supporting materials and in this description, COBRAS retained DDMP as the term for planning done within doctrinal norms for mission planning time and MDMP as the term for planning done under significant time limitations.

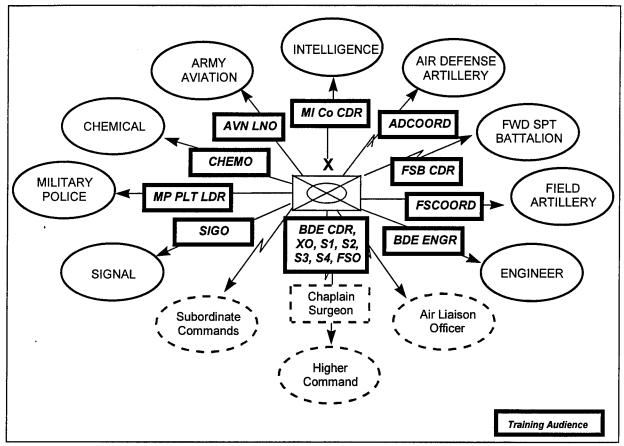


Figure 2. Selected training audience for the COBRAS brigade staff.

Analyzing Performance Requirements

The performance requirements for the COBRAS I training audience were developed using a process referred to as the Staff Performance Analysis (SPA).³

The SPA yielded a set of brigade staff tasks. The tasks were organized by mission (e.g., MTC), segment within each mission (e.g., mission analysis, course of action development) and duty position of the COBRAS I, 11-person training audience. Tasks were presented in roughly the order they are expected to occur during performance of the mission segments.

In the COBRAS TSP, the task lists are intended to be used as coaching guides for training observers and as job aids for the training participants. However, they identify only what is to be done, not how to do the task.

Modifying the Methodology for COBRAS II Performance Requirements

As mentioned previously, COBRAS II expanded the original 11-person training audience to include the MP platoon leader, signal officer, military intelligence company commander, assistant S-3/chemical officer, and the army aviation liaison officer. As a result, task lists had to be generated for each of these five staff officers, describing their individual activities and the

³ The research foundations and developmental processes for the SPA are described fully in Ford, L. and Campbell, R. (in press).

shared or staff group tasks performed in concert with the other 15 members of the training audience. In addition, the task lists of the original 11-person training audience had to be revised to reflect their interactions with the five additions to the training audience list. For example, the task list for the S-3, operations officer, had to be revised to reflect his interactions with the MP platoon leader, and the signal officer.

The complete application of the original SPA methodology would have required enacting all of the mission segments with the expanded audience present and repeating all the steps in the SPA methodology (as described in Ford, L. & Campbell, R., in press):

- Select the scenario event
- Observe the event
- Construct an event timeline
- Specify interaction nodes
- Identify decision points
- Identify products
- Conduct probes

As in COBRAS I, this would have to be done for at least two missions, MTC and AD. (The staff tasks for the two offensive operations, MTC and DATK, had been found to be virtually indistinguishable.) Experience in COBRAS I indicated that the detailed application of the SPA process would be extremely time consuming and would require a roleplayer to actively represent each member of the training audience. In COBRAS II, there was neither the time in the development schedule to support these complete roleplays, nor was the development staff large enough to provide dedicated roleplayers for each of the 16-member training audience.

Therefore, it was decided that the SPA process would be modified for the COBRAS II effort in order to identify the tasks for the additional five members of the training audience, and the additional tasks for the original 11-person training audience.

The Modified SPA (ModSPA) included the following steps:

- Use the COBRAS I task lists as the starting descriptions of staff activities.
- Assign COBRAS staff subject matter experts (SMEs) for each of the new positions.
- Replay each mission segment in a round table discussion with SMEs for the new positions and the original positions (most staff SMEs covered more than one position).
- Use existing COBRAS I lists as the framework and trigger for actions of new members and their interactions with the existing training audience members.
- Record the task lists for the five new members and changes to the task lists for the original 11-person training audience.
- Review all task lists against doctrinal and other publications.
- Record revisions and conduct a final review for consistency in terminology and level of detail.

The work began using this ModSPA process. Draft task lists for the DATK and AD missions were developed and entered into a Microsoft Access® database to facilitate sorting and sequencing. The DATK task list was then examined and modified as necessary to make it applicable to the MTC mission. Reviews were conducted for the DATK mission and changes made to the database.

At this point of the process, with the initial task lists drafted, the COBRAS II project obtained assistance from outside the existing staff. To continue the crosschecking and verification, a team that had worked over most of the previous three years on a contract defining and analyzing a battlefield functions model (Ford, J., Mullen, & Keesling, in press) was available to continue the review of the COBRAS II task lists. Their extensive work in exploring the staff activities at brigade and battalion level enabled them to provide a review of the technical adequacy of the draft task lists. They offered suggestions on modifications or additions to the task lists to make them more descriptive of the activity expected and provided a crosscheck for consistency among the task lists.

This augmentation team was briefed on the particular METT-T of the COBRAS exercise to ensure that they understood the cues which would generate the staff performance. They then conducted the reviews and made their suggestions in the form of updated databases for the various task lists.

These draft task lists were reviewed once more by the COBRAS team to insure that they were consistent with the METT-T of the COBRAS exercise. They were then placed into a final MS Word® format for inclusion in the TSP.

The Revised Brigade Staff Tasks

The COBRAS II task lists for the observer of the brigade XO are provided at Appendix A as an example of the final task lists. Two versions were prepared for the TSP: The observer task lists contain the details described below, while the versions for the training audience do not make reference to sample products.⁴ Lists for MTC and DATK reflect activities for a DDMP as described in Army doctrine. The lists for the AD reflect activities for a modified, or accelerated, decision program under constrained time. The process used is described at the beginning of each training audience member's AD task list.

As in COBRAS I, the task lists are specific to the METT-T of the COBRAS scenario and to the directed activities of the COBRAS training design. Each task has the following components:

- <u>Task number</u> The task sequence number within the mission segment. Subtasks are indicated by means of decimal places (e.g., 1.1, 1.2).
- <u>Task statement</u> The task statement describes the action that should be performed.
- <u>Product description</u> A specific outcome of the action described in the task statement (when it results in a product).

⁴ The full set of lists can be found in the training audience and observer task list packages of the COBRAS II TSP (ARI, 1997).

• <u>Sample products</u> - Sample products related to tasks are shown in **BOLD** in the product description on the observer task lists. These sample products, produced by the COBRAS staff, are examples of draft or working products, or final staff products which members of the staff might produce during the performance of the staff functions. They are included in the TSP and available for use by the observer in coaching or reviewing the training audience member's performance.

Use and Evaluation of the COBRAS II Task Lists

Approximately midway through the COBRAS II effort, the draft task lists for one mission were used in a unit trial of the program. An active duty brigade conducted a one mission training exercise to provide feedback on the exercise and its supporting products. The reactions to the task lists by observers and training audience were generally favorable.

Soldiers filling observer positions rated the task lists as useful in preparing them for the exercise, in keeping track of what to observe, and in coaching. They commented that the task lists were very good for someone without a great deal of recent experience in the area they were observing and were a good source for reviewing the steps or performance that should be expected of their assigned training audience member.

Training audience members rated the task lists as helpful in clarifying what the training audience would be doing during the training, anticipating the demands of their jobs during the exercise, and helpful in preparing for the exercise. They also commented that the task lists served as a memory jogger/reminder; they were an excellent tool--a good, comprehensive list, and an excellent reminder of things to focus on. Although the training audience reported that the task lists were useful in preparing for the exercise, the trial showed that they did not extensively use the task lists in preparing for the exercise.

Another trial with the same unit occurred in May 1997. By this time, the final TSP had been delivered. The use of and reactions to the task lists remained essentially unchanged from the previous trial.

Observations and Lessons Learned

Consistency with Existing Army Task Lists

The recognized lists of tasks for Army training are found in the Army Training and Evaluation Program - Mission Training Plans (ARTEP-MTPs). The tasks themselves are found in Section 5 of those publications, where the training and evaluation outlines (T&EOs) are provided for each task. It was ARTEP-MTP 71-3 (Department of the Army, 1988) for the brigade staff that was originally judged incomplete for supporting exercises such as COBRAS, prompting the effort within this program to provide additional detail and descriptions.

The differences between the intended use of the tasks in MTP 71-3 and the COBRAS task list generated considerable confusion throughout the effort. The purpose of the 71-3 MTP is to define the task domain for the brigade staff's responsibilities across all missions and conditions. It is not necessarily organized to describe the flow of a planning process, or other phase of operations, nor the flow of a specific training exercise.

On the other hand, the COBRAS task list was developed to support the particular METT-T of this COBRAS exercise and to specifically support the processes which were the focus of the observation and feedback system. That goal resulted in the level of detail and organization found in the COBRAS lists.

There was a natural desire to look at the COBRAS task lists for possible inclusion in the MTPs, thus improving the doctrinal task descriptions available to the brigade staff. It became obvious that the tasks could not be copied directly into 71-3 MTP. Many of the task statements would be classified in the MTP as task or subtask steps. Because of their intended use, conditions and standards were not included. Finally, the way the tasks were organized and their METT-T specific nature meant they certainly couldn't replace the existing task lists.

The lack of direct linkage to the existing task list became a problem as some looked for the task lists in COBRAS to point directly to the ARTEP tasks on which the exercise provided training. The question, "What ARTEP tasks are trained?" was frequently asked in reviews and discussions. Interestingly, the units who participated in trials of the exercise never had that question. Once they were told the METT-T for the exercise and the phases of the staff processes that would be trained, they readily accepted the exercise, not looking for specific staff officer or section task descriptions. They simply didn't need that level of task description to choose the exercise as a training event. The COBRAS exercise provides other significant explanatory material which covers the intent of and benefits to be gained by running the exercise. The TSP does not rely on the task lists to convey this information to commanders and training managers.

The MTP T&EOs are in a format that implies that they are for use in scoring subtask performance in terms of trained, practice needed, or untrained; and then used in a subjective summation process to assign a rating for the overall task. The COBRAS tasks do not support such a scoring process. The vast number of task statements would make it a significant administrative task just to record the observations, even if some observer could witness, assess, and judge each step. The observers in the trials showed no inclination to even attempt such a process. And, logic says this would not provide any useful information to the training audience anyway.

Despite these differences from the ARTEP tasks, the COBRAS task lists serve their intended role of describing the performance expectations of specific staff members in the particular METT-T of this exercise. However, the confusion between the intended use of the MTP tasks and the COBRAS task continues, and probably warrants reexamining the entire question of what staff task lists are used for and how staff processes should be best described. Staff task statements are clearly different from the task statements that describe physical activities (such as "disassemble a machinegun").

Task Lists as Surrogate Tactics, Techniques, and Procedures

To describe even the staff process activities of the brigade staff, not including the additional supervision, leadership tasks, is a significant effort. The sheer volume of these task statements attests to the difficulty of capturing all that these staff officers do. When sufficient detail is put into the descriptions to make them useful for describing to a staff officer what is expected, the task list becomes one which is less useful during the exercise. It becomes overwhelming.

There is probably a strong argument for developing complete tactics, techniques, and procedures (TTP) for these staff members, separate from the task lists. That would allow the MTPs to be used to describe staff functions, skills, or key staff techniques and procedures which are required, and would make the MTPs useful in designing and selecting training programs to address particular staff functions. The details of how those key techniques and procedures are done would be captured in other publications which tell staff members "how to," and provide the necessary additional information to be truly instructive.

Evolving Doctrine

Even in a relatively uncontroversial area such as staff processes, there is a significant challenge in capturing the current Army thinking and teaching on how various staff processes are done. During this program's development, identifying a consensus solution to the description of the decision-making processes used by brigades proved elusive. There was a wide range of possible solutions. Some variations were relatively superficial such as what to call a decision process conducted under significant time constraints. Others were substantive such as what is precisely occurring during each step. These solutions changed over time. The doctrinal publications stop far short of fully describing that process, while some non-doctrinal publications with extremely useful detail, are judged "non-doctrinal" by different reviewers.

The issue is not new and is not likely to be resolved. Many of the Army's processes or procedures are left to the judgment or prerogatives of the commander or staff. However, given the rapid turn-over in staff personnel, there is no good rationale for having each commander and staff essentially develop their own version of the decision-making process, only to leave within a year or two. Therefore, the Army needs to increase the standardization of these processes and have a well-defined accepted solution for staffs and commanders to study and use.

Summary and Conclusions

The process used to expand the task lists of the COBRAS II program was an effective process for building on the SPA methodology used in COBRAS I. The resulting task lists support the exercise and are useful in their intended purpose of providing a description of the performance expected of the training audience in this exercise.

Areas for Future Work

This effort indicates need for continued research into the function that tasks serve in Army training. Tasks, conditions, and standards as a method of conveying training objectives have made a major contribution. They are extremely useful in describing individual performance, particularly manual activities; however, they become more unwieldy when used to describe collective, staff or other cognitive activities. A review of what purpose tasks, conditions, and standards serve at what level, and how they could best be constructed would make them more useful in describing and supporting Army training. Areas for examination, particularly in the area of staff training, could be:

 What activity descriptions are useful in selecting various training exercises or alternatives?

- What activity descriptions are useful in providing feedback and coaching during training?
- What activity descriptions are useful in describing the anticipated focus of training to the training audience?

REFERENCES

- Brown, F. J. (1993). <u>Training third wave landpower: Structured training</u> (IDA Paper P-2947). Alexandria, VA: Institute for Defense Analysis.
- Campbell, C. H., Deter, D. E., & Quinkert, K. A. (in press). Report on the expanded methodology for development of structured simulation-based training program (ARI Research Report 1710). Alexandria, VA: Army Research Institute for the Behavioral and Social Sciences.
- Department of the Army, Headquarters (1988). Mission training plan for the heavy brigade command group and staff (ARTEP 71-3-MTP). Washington, DC: Author.
- Ford, J. P., Mullen, W. J., III, & Keesling, J. W. (in press). <u>Analysis of command and control</u> battlefield functions as performed in the armored brigade (ARI Research Report 1711). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Ford, L. A. & Campbell, R. C. (in press). <u>Staff performance analysis: A method for identifying brigade staff task</u> (ARI Research Product). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Hoffman, R. G., Graves, C. R., Koger, M. E., Flynn, M. R., & Sever, R. S. (1995). <u>Developing</u>
 the reserve component virtual training program: History and lessons learned (ARI
 Research Report 1675). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Sullivan, G. R. (1994). America's Army Focusing on the Future. Army, pp. 19-30.
- U.S. Army Research Institute for the Behavioral and Social Sciences (1997). Simulation-based mounted brigade training program (SIMBART). Fort Knox, KY: U.S. Army Research Institute for the Behavioral and Social Sciences. (Available from U.S. Army Research Institute, Armored Forces Research Unit, ATTN: TAPC-ARI-IK, Fort Knox, KY 40121.)

APPENDIX A

Sample COBRAS Brigade Staff Tasks

Mission Analysis

1	Task: Cue: Product:	Develops a brigade planning timeline that outlines the main events in the staff decision making process (DMP) and issues it to the brigade participants in the planning process for the current mission. Receipt of Division order Brigade planning timeline for all brigade DMP participants
2	Task: Cue: Product:	Receives guidance and commander's critical information requirements (CCIR) from the brigade commander and relays to the staff.
3	Task: Cue: Product:	Gathers the staff to collect questions, and provide guidance.
4	Task: Cue: Product:	Discusses the enemy situation with the S2. [Sample Enemy Course of Action (COAs)]
5	Task: Cue: Product:	Verifies that the intelligence preparation of the battlefield (IPB) has been completed through step 4.

Mission Analysis

6 Leads the staff in consolidating individual staff mission analysis results into the Task: products that define brigade mission analysis. Cue: Brigade planning timeline for mission analysis Product: Consolidated staff mission analysis information which includes: lists for brigade facts and assumptions, specified and implied tasks, essential tasks, constraints and restrictions, available assets and restated mission 7 Task: Provides guidance to staff and identifies brigade facts, assumptions, and limitations that could lead to mission shortcomings. Cue: Product: [Sample Facts List] [Sample Assumptions List] 8 Task: Identifies specified, implied and essential tasks with the staff. Cue: Product: List of essential tasks [Sample Specified, Implied and Essential Tasks] 9 Task: Identifies essential tasks with the staff. Cue: **Product:** 10 Task: Modifies/approves the draft restated mission. S3 submits draft of restated mission Cue: Product: Draft restated mission [Sample Essential Tasks, Proposed Restated Mission and

Cdr's Intent]

Mission Analysis

11	Task: Cue: Product:	Reviews the mission analysis briefing presentations with individual staff members. Planning timeline Mission analysis briefing charts
12	Task: Cue: Product:	Directs the posting of the corps and division commander's mission and intent.
13	Task: Cue: Product:	Leads the mission analysis briefing to the brigade commander. Designated time for mission analysis briefing
14	Task: Cue: Product:	Receives the commander's decision and implements guidance through instructions to staff. Approved restated mission and other mission analysis products [Sample Essential Tasks, Proposed Restated Mission and Cdr's Intent]
15	Task: Cue: Product:	Modifies or approves draft brigade warning order and submits to brigade commander for final approval. Approved brigade warning order

COA Development

Task:	Analyzes the brigade commander's guidance and develops method for incorporating in COAs. Receives commander's guidance
Product:	Treserves sommander o guidanos
Task:	Acts as the facilitator during the development of the brigade COAs by ensuring that each staff section is fully involved and is considering application of their own Battlefield Operating System (BOS)/function.
Cue: Product:	Brigade planning timeline for COA development [Sample Friendly COAs]
Task:	Makes the final determination of whether the brigade COAs are suitable, distinguishable, complete, acceptable, and feasible prior to COA briefing to the commander.
Cue: Product:	
Task: Cue: Product:	Receives commander's guidance as a result of COA brief and ensures implementation of guidance through staff.
Task: Cue: Product:	Ensures staff members clearly understand the COAs which will be wargamed.
	Cue: Product: Task: Cue: Product: Task: Cue: Product: Task: Cue: Cue: Cue: Cue:

COA Development

6 Task: Monitors S2's and S3's development of initial reconnaissance concept and taskings.

Cue:

Product:

Warg	gaming	
1	Task:	Directs the staff in preparing for wargaming by gathering all necessary information and materials including updated estimates, COA statements and sketches (tasks and purpose for each subordinate command, brigade main effort), synch matrix, critical event task list and action-reaction-counter action sheet.
	Cue:	Brigade planning timeline for wargaming
	Product:	[Sample Synch Matrix]
1.1	Task: Cue:	Identifies friendly critical events in coordination with the S3.
		List of friendly critical events
1.2	Task: Cue:	Recommends the wargaming method and recording technique to the brigade commander.
	Product:	
1.3	Task:	Determines evaluation criteria that will be used to measure relative effectiveness and efficiency of one COA relative to other COAs.
	Cue: Product:	List of evaluation criteria [Sample Decision Matrix]
2	Task:	Guides the staff during the wargaming process to ensure that significant issues are addressed.
	Cue: Product:	

Wargaming 2.1 Task: Leads the staff during the wargaming so as to determine branches based on enemy successes, decision points, CCIR, high payoff target (HPT), named area of interest (NAI)/target area of interest (TAI) reconnaissance and surveillance (R&S) plan information and other similar critical BOS related information. Cue: Product: Synchronized plan [Sample decision support template (DST)] 2.2 Leads the staff in the continuous assessment during the wargaming to ensure COAs Task: remain feasible, that risks are identified, that premature conclusions are not drawn and comparison of COAs is not done during wargaming. Cue: Product: 2.3 Task: Cues the recorder to capture wargaming actions, decisions and results. Cue: Product: Completed synch matrix and notes on wargaming Directs the S3 to update COA statements and overlays, DST/decision support matrix 2.4 Task: (DSM) and synchronization matrix. COA statement and sketch for all COA and completed DST/DSM. Cue: Completion of wargaming Product: COA statement and sketch for all COA and completed DST/DSM and synchronization matrix. Insures early reconnaissance tasks are identified and planning for support of recon 3 Task: effort is ongoing. Cue: **Product:**

COA Comparison

1 Task: Leads the staff in reviewing and updating evaluation criteria developed during

wargaming based on: characteristics of operations, brigade commander's guidance,

battlefield framework, BOS considerations and risk.

Cue:

Product: Revised list of evaluation criteria and draft decision matrix

2 Task: Leads the staff in completing the brigade decision matrix, comparing all selected

COA and noting any dissenting or modifying recommendations.

Cue:

Product: Brigade COA decision matrix [Sample Decision Matrix]

3 Task: Leads the staff in determining the staff recommended COA.

Cue:

Product: Brigade staff recommended COA

4 Task: Directs the staff in preparation for the decision briefing to the commander by stating

the briefing outline and schedule and ensures the S3 has prepared the necessary

charts and overlays.

Cue:

Product: Decision brief schedule and charts

5 Task: Conducts the commander's decision brief and provides the commander a description

of each COA, gives an evaluation of each COA and briefs the staff recommended

COA.

Cue:

Product: Commander approved COA and guidance

COA Comparison

6 Task: Receives the commander's decision, insures commander's intent and guidance is

understood by staff. Insures staff has all decisions necessary to begin order

preparation.

Cue:

Product:

7 Task: Approves warning order and submits to the brigade commander for his approval.

Cue:

Product: Approved warning order

Orders Prep

1 Task: Directs the staff to complete coordination and planning necessary to implement

approved COA and commander's guidance.

Cue:

Brigade planning timeline for orders prep

Product: Coordinated and synchronized brigade operations order (OPORD)

2 Task: Provides guidance and timeline for brigade OPORD preparation to the staff members.

Cue:

Product:

2.1 Task: Receives the commander's intent statement from the brigade commander and

provides to the S3 to be included in paragraph 3 of the brigade order.

Cue:

Product: Commander's Intent statement

2.2 Task: Directs the S3 to receive CCIR (priority intelligence requirement [PIR], essential elements of friendly information [EEFI], friendly force information requirements [FFIR]) from the commander and staff to be included in paragraph 3.d., "Execution:

Coordinating Instructions," of the brigade order.

Cue:

Product: Final CCIR

2.3 Task: Convenes the targeting team to coordinate and finalize targeting planning which

includes final HPT list, attack guidance matrix (AGM) information and target selection

standards (TSS).

Cue:

Product: Final HPTL, AGM and TSS

Ord	Orders Prep		
2.4	Task: Cue: Product:	Directs the S3 to write base OPORD (5 paragraph) with input from appropriate staff officers. [Sample Brigade Order]	
2.5	Task: Cue: Product:	Assigns responsibilities for production of OPORD annexes: Annex A - S3, Annex B - S2, Annex C - S3, Annex D - ENGR, Annex F - FSO, Annex G - ADCOORD, Annex Q - S1/S4, Annex N - CHEMO, Annex I - S2.	
3	Task: Cue: Product:	Reviews all brigade order materials and annexes as they are prepared by the staff.	
4	Task: Cue: Product:	Reviews final draft brigade OPORD with the S3. Final draft OPORD and annexes	
5	Task: Cue: Product:	Submits the draft brigade OPORD to the brigade commander for review and approval.	

Orders Prep

Task: 6 Reviews and approves the DST and synch matrix.

Cue:

Product: Final DST; synch matrix

7 Verifies that reconnaissance taskings support the CCIR and all aspects of support for Task:

reconnaissance are provided.

Cue:

Product:

Authorizes the reproduction of the brigade OPORD. 8 Task:

> Cue: Brigade commander's approval

Product:

Rehearsal 1 Task: Prepares for the rehearsal by reviewing the synch matrix, the DST, the operations graphics, and the intelligence graphics. Cue: Brigade planning timeline for the rehearsal. Product: 2 Task: Directs the preparation and set up of the rehearsal following the dictates of the commander. Cue: Receives commander's guidance Product: Prepared rehearsal site 3 Presents administrative information and the rehearsal agenda. Task: Cue: **Product:** 4 Task: Directs the S3 to orient rehearsal participants to the terrain, read mission statement and to identify critical events. Cue: DST and synch matrix Product: 5 Task: Identifies recorder to track staff input and record any staff changes or new requirements.

Cue: Product:

Rehearsal 6 Task: Directs the rehearsal participants to rehearse decision points and walk through the actions pertaining to each critical event. Cue: **Product:** 7 Task: Verifies the synch matrix. Cue: Product: 8 Task: Participates in the commander's review of the rehearsal to confirm significant changes or new requirements discussed during the rehearsal. Cue: Commander's review following the rehearsal Product: Notes concerning commanders guidance 9 Task: Directs the staff to develop plans to address new requirements or changes to the plan identified during the rehearsal. Cue: **Product:** Finalized input for brigade fragmentary order (FRAGO) 10 Task: With the commander's approval, issues a FRAGO or implementing instructions to the OPORD and annexes based on the rehearsal. Cue: Product: Brigade FRAGO

Exec	Execution		
1	Task: Cue: Product:	As the Main command post (CP) officer in charge (OIC), directs the brigade staff in the monitoring of the deep, close and rear battles according to the synch matrix, the DST/DSM and the brigade commander's guidance. Synchronized brigade operations	
1.1	Task: Cue: Product:	Periodically assesses the capabilities of the brigade. Situation reports; staff assessments	
1.2	Task: Cue: Product:	Directs efforts of battle captain in coordinating tactical operations center (TOC) operations.	
2	Task: Cue: Product:	Ensures the brigade staff is acquiring information according to the CCIR and other information necessary for synchronized operations. Information to satisfy CCIR	
2.1	Task: Cue:	Confirms that all units are on proper radio nets.	

Product:

Executive Officer — Movement to Contact
Checks readiness of units for movement to contact.
Monitors the movement of units after line of departure (LD).

2.4 Task: Ensures the S3 section reports on critical events in accordance with the DST as events occur.

Cue:
Product:

2.5 Task: Monitors the reconnaissance and surveillance operation. Cue:

Z.6 Task: Monitors adjacent unit progress and brigade's manning of contact points.

Cue: Product:

Product:

Execution

Task:

Cue: Product:

Task:

Cue:

2.2

2.3

Exec	cution	
2.7	Task: Cue: Product:	Continuously monitors readiness status of subordinate units. Situation reports; status reports
2.8	Task: Cue: Product:	Monitors fire support, mobility, counter mobility and survivability, air defense, signal and combat service support (CSS) operations. Synch matrix, CCIR and battlefield events BOS situational awareness
3	Task: Cue: Product:	Directs the staff to communicate brigade battlefield information to include brigade status and situation to higher and adjacent units and brigade, division and adjacent unit information to subordinate units, brigade CPs and the brigade commander and staff. Battlefield situation and reports.
3.1	Task: Cue: Product:	Ensures higher headquarters (HQ) is apprised of movement progress. Initiation of movement
3.2	Task: Cue: Product:	Ensures the S2 section provides intelligence reports to the division in accordance with division collection plan and CCIR.

Execution 3.3 Task: Ensures that the S2 disseminates intelligence updates to division, brigade commander, and subordinate units. Cue: Product: 3.4 Task: Informs brigade commander of unit capabilities. Cue: **Product:** 3.5 Task: Directs brigade staff elements in tactical command post (TAC), Main and Rear CPs to maintain current situation by monitoring the appropriate nets and posting maps and updating charts. Cue: Product: Brigade CP situation awareness Task: Assists the brigade commander in the synchronization of the battle by coordinating with the brigade staff members and other CPs to ensure all brigade combat power is applied according to the concept of the operation, the DST/DSM and the synch matrix. Cue: Product: Synchronized battle 4.1 Task: Controls movement of units from assembly area (AA) to attack (ATK) to LD. Cue: Initiation of movement **Product:**

Execu	Execution		
4.2	Task: Cue: Product:	Takes action, in conjunction with the brigade S2 and S3, to ensure that the brigade R&S plan is effective, to include observers assigned responsibility for targets/NAI are in position, assets are reconstituted if lost, PIR are being satisfied and sufficient R&S assets are available to conduct rear area operations.	
4.3	Task: Cue: Product:	Convenes the targeting team to coordinate brigade targeting to include identifying HPT and deep attack targets, assets to conduct the attack and updating of the attack guidance and target selection standards. Changes in METT-T and battlefield events Coordinated targeting plan for deep, close and rear operations	
4.4	Task: Cue: Product:	Direct the staff in coordinating execution of the brigade deep battle, assessing results of the attacks and coordinating reattacks, as required. Synch matrix; DST	
4.5	Task: Cue: Product:	Coordinates with the CHEMO concerning mission oriented protective posture (MOPP) status, smoke operations and decontamination requirements for brigade units.	
4.6	Task: Cue: Product:	Coordinates with the brigade engineer to ensure capability exists to reduce enemy obstacles and to employ SCATMINES and family of scatterable mines (FASCAM).	

Exec	ution	
4.7	Task: Cue: Product:	Takes action, in conjunction with the ADCOORD to ensure that Air Defense priorities and positioning support brigade operations.
4.8	Task: Cue: Product:	Take action in conjunction with the brigade FSO or FSCOORD to ensure that the FS plan is supportive of current brigade operations.
4.9	Task: Cue: Product:	Directs the BSO to ensure brigade communications can support brigade operations to include status of retransmission capability and communications for and between CP locations.
4.10	Task: Cue: Product:	Takes action in conjunction with the S1/S4 to ensure CSS can support brigade operations to include military police (MP) missions, casualty evacuation (CASEVAC) system, supply priorities, critical personnel replacements and FSB Rear CP and brigade support area (BSA) status.
4.11	Task: Cue: Product:	Anticipates requirements for, requests and coordinates employment of additional combat, combat support or CSS assets needed for support of brigade operations. Battlefield events and change in METT-T

Execution

4.12 Task:

Directs the S3 to coordinate and control brigade rear area protection operations.

Cue:

Rear area threat

Product:

5 Task:

Directs the brigade staff during the planning process associated with the

commander's decision to issue a FRAGO based on changes in METT-T.

Cue:

Brigade commander's decision to issue a FRAGO.

Product: Brigade FRAGO

5.1 Task:

Reviews draft FRAGO, provides FRAGO to commander for approval, and directs the

brigade S3 to issue the FRAGO.

Cue:

Product:

Execution (Consolidation/Reorganization)

1 Task: Alerts the staff to start preparing for consolidation and reorganization.

Cue: Receives division FRAGO

Product:

2 Task: Confirms that the enemy is not advancing by contacting the deputy G2 at division

tactical command post.

Cue: Receives division FRAGO

Product:

3 Task: Coordinates the staff in developing a consolidation and reorganization plan.

Cue: Planning timeline set by XO

Product: Draft plan for consolidation and reorganization

4 Task: Coordinates with the brigade commander for approval of the plan for consolidation and

reorganization.

Cue: Draft plan for consolidation and reorganization

Product: Approved plan for consolidation and reorganization

Task: Directs that a FRAGO be published with a new mission.

Cue: Approved plan for consolidation and reorganization; division FRAGO

Product: Draft FRAGO

Execution (Consolidation/Reorganization)

6 Task: Reviews the FRAGO before dissemination.

Cue: Draft FRAGO

Product: FRAGO

Mission Analysis

1	Task:	Directs the staff to brief the current information relevant to their staff area to the brigade commander.
	Cue:	Request by commander for update brief
	Product:	
1.1	Task:	Identifies for the commander significant factors concerning brigade's readiness and conditions.
	Cue:	conditions.
	Product:	
	7. P. W.	
1.2	Task:	Summarizes status of critical replenishment tasks and recommends priorities to the
	Cue:	commander.
	Product:	
2	Task:	Reads the division order and begins planning individual tasks for the staff.
	Cue:	Receives division order List of planning tasks for staff
	i roudot.	List of planning tasks for stair
	-	
3	Task:	Develops a brigade planning timeline that outlines the main events in the staff DMP and issues it to the brigade participants in the planning process for the current mission.
	Cue:	Receipt of Division order
	Product:	Brigade planning timeline for all brigade DMP participants

Mission Analysis

4	Task: Cue: Product:	Receives guidance and CCIR from the brigade commander and relays to the staff.
5	Task: Cue: Product:	Gathers the staff to collect questions, and provide commander's and his own guidance.
6	Task: Cue: Product:	Discusses the enemy situation with the S2. None
7	Task: Cue: Product:	Verifies that the IPB has been completed through step 4 and that S2 has provided two enemy COAs to Commander. Two enemy COAs for Commander's COA development process [Sample Enemy COAs]
8	Task: Cue: Product:	Leads the staff in consolidating individual staff mission analysis results into the products that define brigade mission analysis. Brigade planning timeline for mission analysis Consolidated staff mission analysis information which includes: lists for brigade facts and assumptions, specified and implied tasks, essential tasks, constraints and restrictions, available assets and restated mission

Mission Analysis

9 Task: Provides guidance to staff and identifies brigade facts, assumptions, restrictions and

constraints.

Cue:

Product: Facts, assumptions, and limitations [Sample Facts and Assumptions Lists] [Sample

Restrictions and Constraints]

10 Task: Identifies specified, implied and essential tasks with the staff.

Cue:

Product: List of specified, implied and essential tasks [Sample Specified, Implied and

Essential Tasks]

11 Task: Continues to monitor current operations and brigade's transition in the hasty defense.

Cue:

Product:

12 Task: Modifies/approves the draft restated mission.

Cue: S3 submits draft of restated mission

Product: Draft restated mission [Sample Essential Tasks Proposed Restated Mission]

13 Task: Reviews the mission analysis updates with individual staff members.

Cue: Planning timeline

Product: Mission analysis briefing charts

Mission Analysis

14	Task: Cue: Product:	Directs the posting of the corps and division commander's mission and intent.
15	Task: Cue: Product:	Leads the presentation of mission analysis information to the brigade commander. Designated time for mission analysis briefing
16	Task: Cue: Product:	Receives the commander's decision and implements guidance through instructions to staff. Approved restated mission and other mission analysis products [Sample Essential Tasks, Proposed Restated Mission and Cdr's Intent]
17	Task: Cue: Product:	Modifies or approves draft brigade warning order and submits to brigade commander for final approval. Approved brigade warning order

COA Development

1 Task:

Receives brigade commander developed initial COA and commander's guidance on

staff involvement in COA refinement and analyzes commander's concept.

Cue:

Brigade planning timeline for COA development

Product: Initial COA developed by commander [Sample Friendly COAs]

2 Task: In conjunction with the brigade commander directs the S3 and staff in the

development of a scheme of maneuver and BOS concepts to support the

commander's initial COA.

Cue:

Commander's initial COA

Product: Revised commander's initial COA

3 Task: In conjunction with the brigade commander and staff, ensures the suitability,

completeness, feasibility and acceptability of the COA prior to wargaming.

Cue:

Product:

4 Task: Receives and records commander's guidance at conclusion of COA development.

Cue:

Brigade planning timeline for COA brief

Product: Approved COA for wargaming; Notes capturing commander's guidance

5 Task: Directs the S3 to develop COA products defining the approved COA, such as COA

statement and sketch, for use during wargaming.

Cue:

Commander's approved COA and guidance

Product: COA statement and sketch

COA Development

6 Task: Monitors S2 and S3's development of initial reconnaissance concept and taskings.

Cue:

Product:

Warg	Wargaming		
1	Task: Cue: Product:	Directs the staff in preparing for wargaming by gathering all necessary information and materials including updated estimates, COA statement and sketch, synch matrix, critical event task list and action-reaction-counter action sheet. Brigade planning timeline for wargaming [Sample Synch Matrix]	
1.1	Task: Cue: Product:	Identifies friendly critical events in coordination with the brigade commander and S3. List of friendly critical events	
1.2	Task: Cue: Product:	Recommends the wargaming method and recording technique to the brigade commander.	
1.3	Task: Cue: Product:	Determines evaluation criteria that will be used to measure and compare COAs.	
2	Task: Cue: Product:	Conducts the wargaming, in conjunction with the brigade commander, and ensures the critical events of the commander's COA are thoroughly examined during the action-reaction-counteraction process.	

War	gaming	
2.1	Task: Cue: Product:	Leads the staff during the wargaming, in conjunction with the brigade commander so as to determine branches based on enemy successes, decision points, CCIR, HPT, NAI/TAI, R&S plan information and other similar critical BOS related information. Synchronized plan [Sample Decision Support Template]
2.2	Task: Cue: Product:	Conducts an assessment during the wargaming to ensure the COA remains feasible, that risks are identified, and that premature conclusions are not drawn.
2.3	Task: Cue: Product:	Cues the recorder to capture wargaming actions, decisions and results. Completed synch matrix and notes on wargaming
3	Task: Cue: Product:	Directs S3 to update the COA statement and overlay, synch matrix and DST/DSM for use during preparation of the order. Completion of wargaming COA statement and sketch, synch matrix, and DST/DSM
4	Task: Cue: Product:	Insures Commander's guidance reflected in his approval of the refined COA is understood by the staff.

Warg	Wargaming		
5	Task: Cue: Product:	Insures staff has all decisions it needs to complete the order.	
5.1	Task: Cue: Product:	Asks for clarification on further guidance for commander.	
5.2	Task: Cue: Product:	Clarifies staff taskings to follow up on critical assumptions or requests for information (RFIs) needed to complete the plan.	
6	Task: Cue: Product:	Directs the S3 to obtain input from brigade staff, write the warning order and submit to brigade XO for approval. Brigade planning timeline for warning order Draft warning order	
7	Task: Cue: Product:	Revise draft warning order, if necessary, provide to commander for approval and direct S3 to issue to brigade units. Brigade planning timeline for warning order Approved brigade warning order received by brigade units	

Orders	Prep
--------	------

Task: Directs the staff to complete coordination and planning necessary to implement

approved COA and commander's guidance.

Cue:

Brigade planning timeline for orders prep

Product: Coordinated and synchronized brigade OPORD

2 Task: Provides guidance and timeline for brigade OPORD preparation to the staff members.

Cue:

Product:

2.1 Task: Receives the commander's intent statement from the brigade commander and

provides to the S3 to be included in paragraph 3 of the brigade order.

Cue:

Product: Commander's Intent statement

2.2 Directs the S3 to receive CCIR (PIR, EEFI, FFIR) from the commander and Task:

staff to be included in paragraph 3.d.,"Execution: Coordinating Instructions," of the

brigade order.

Cue:

Product: Final CCIR

Convenes the targeting team to coordinate and finalize targeting planning which 2.3 Task:

includes final HPT list, AGM information and TSS.

Cue:

Product: Final HPTL, AGM and TSS

Ord	Orders Prep		
2.4	Task: Cue:	Directs the S3 to write base OPORD (5 paragraph) with input from appropriate staff officers.	
		[Sample Brigade Order]	
2.5	Task:	Assigns responsibilities for production of operations order annexes: Task organization annex - S3, Operations annex - S3, Intelligence annex - S2, Engineer annex - ENGR, Fire Support annex - FSO, Air Defense annex - ADCOORD, CSS annex - S1/S4, NBC Defense annex - CHEMO, Civil Affairs annex - S1, Army Aviation annex - AV LNO, A2C2 annex - S3 and AV LNO, Electronic warfare annex - S2 and MI company commander, Rear area operations annex - S3 and FSB commander.	
	Cue: Product:	[Sample Brigade Order]	
3	Task: Cue: Product:	Reviews all brigade order materials and annexes as they are prepared by the staff.	
4	Task: Cue: Product:	Reviews final draft brigade OPORD with the S3. Final draft OPORD and annexes	
5	Task:	Submits the draft brigade OPORD to the brigade commander for review and approval	

Cue: Product:

Orders Prep

6 Task: Reviews and approves the DST and synch matrix.

Cue:

Product: Final DST; synch matrix

7 Task: Verifies that the reconnaissance taskings support the CCIR and all aspects of

support for reconnaissance effort are provided.

Cue:

Product:

8 Task: Authorizes the reproduction of the brigade OPORD.

Cue: Brigade commander's approval

Product:

Rehearsal

1	Task: Cue: Product:	Prepares for the rehearsal by reviewing the synch matrix, the DST, the operations graphics, and the intelligence graphics. Brigade planning timeline for the rehearsal.
2	Task: Cue: Product:	Directs the preparation and set up of the rehearsal following the dictates of the commander. Receives commander's guidance Prepared rehearsal site
3	Task: Cue: Product:	Presents administrative information and the rehearsal agenda.
4	Task: Cue: Product:	Directs the S3 to orient rehearsal participants to the terrain, read mission statement and to identify critical events. DST and synch matrix
5	Task: Cue: Product:	Identifies recorder to track staff input and record any staff changes or new requirements

Rehearsal 6 Directs the rehearsal participants to rehearse decision points and walk through the Task: actions pertaining to each critical event. Cue: **Product:** 7 Task: Verifies the synch matrix. Cue: **Product:** 8 Task: Participates in the commander's review of the rehearsal to confirm significant changes or new requirements discussed during the rehearsal. Cue: Commander's review following the rehearsal Product: Notes concerning commander's guidance Directs the staff to develop plans to address new requirements or changes to the 9 Task: plan identified during the rehearsal. Cue: Product: Finalized input for brigade FRAGO 10 Task: With the commander's approval, issues a FRAGO or implementing instructions to the OPORD and annexes based on the rehearsal. Cue: Product: Brigade FRAGO

Exec	ution	
1	Task: Cue: Product:	As the Main CP OIC, directs the brigade staff in the monitoring of the deep, close and rear battles according to the synch matrix, the DST/DSM and the brigade commander's guidance. Synchronized brigade operations
1.1	Task: Cue: Product:	Periodically assesses the capabilities of the brigade. Situation reports; staff assessments
1.2	Task: Cue: Product:	Directs efforts of battle captain in coordinating TOC operations.
2	Task: Cue: Product:	Ensures the brigade staff is acquiring information according to the CCIR and other information necessary for synchronized operations. Reports and information from higher, adjacent and subordinate units, other brigade CPs, and internal staff coordination Information to satisfy CCIR
2.1	Task: Cue: Product:	Confirms that all units are on proper radio nets.

Exe	Execution		
2.2	Task: Cue: Product:	Checks readiness of units for execution.	
2.3	Task: Cue: Product:	Monitors the movement of units after LD.	
2.4	Task: Cue: Product:	Ensures the S3 section reports on critical events in accordance with the DST as events occur.	
2.5	Task: Cue: Product:	Monitors the reconnaissance and surveillance operation.	
2.6	Task: Cue: Product:	Monitors adjacent unit progress and brigade's manning of contact points.	

Execution			
2.7	Task: Cue: Product:	Continuously monitors readiness status of subordinate units. Situation reports; status reports	
2.8	Task: Cue: Product:	Monitors nuclear, biological and chemical (NBC) battle management and smoke, aviation, fire support, mobility, counter mobility and survivability, air defense, signal and CSS operations. Synch matrix, CCIR and battlefield events BOS situational awareness	
3	Task: Cue: Product:	Directs the staff to communicate brigade battlefield information to include brigade status and situation to higher and adjacent units and brigade, division and adjacent unit information to subordinate units, brigade CPs, and the brigade commander and staff. Battlefield situation and reports.	
3.1	Task: Cue: Product:	Ensures higher HQ is apprised of movement progress. Initiation of movement	
3.2	Task:	Ensures the S2 section provides intelligence reports to division in accordance with division collection plan and CCIR.	

Product:

Execution 3.3 Task: Ensures that the S2 disseminates intelligence updates to division, brigade commander, and subordinate units. Cue: Product: 3.4 Informs brigade commander of unit capabilities. Task: Cue: **Product:** Directs brigade staff elements in TAC, Main and Rear CPs to maintain current 3.5 Task: situation by monitoring the appropriate nets and posting maps and updating charts. Cue: **Product:** Brigade CP situation awareness Task: Assists the brigade commander in the synchronization of the battle by coordinating with the brigade staff members and other CPs to ensure all brigade combat power is applied according to the concept of the operation, the DST/DSM and the synch matrix. Cue: Product: Synchronized battle 4.1 Controls movement of units to subsequent defensive positions. Task: Cue: Initiation of movement Product:

Execution 4.2 Task: Takes action, in conjunction with the brigade S2 and S3, to ensure that the brigade R&S plan is effective, to include observers assigned responsibility for targets/ NAI and in position, assets are reconstituted if lost, PIR are being satisfied and sufficient R&S assets are available to conduct rear area operations. Cue: **Product:** 4.3 Task: Convenes the targeting team to coordinate brigade targeting to include identifying HPT and deep attack targets, assets to conduct the attack, and updating of the attack guidance and target selection standards. Cue: Changes in METT-T and battlefield events Product: Coordinated targeting plan for deep, close and rear operations 4.4 Task: Direct the staff in coordinating execution of the brigade deep of battle, assessing results of the attacks and coordinating reattacks, as required. Cue: Synch matrix; DST Product: 4.5 Task: Coordinates with the CHEMO concerning MOPP status, smoke operations and decontamination requirements for brigade units. Cue: Product: 4.6 Task: Coordinates with the brigade engineer to ensure capability exists to reduce enemy obstacles and to employ SCATMINES and FASCAM. Cue: Product:

Exec	Execution		
4.7	Task: Cue: Product:	Takes action, in conjunction with the ADCOORD to ensure that Air Defense priorities and positioning support brigade operations.	
4.8	Task: Cue: Product:	Take action in conjunction with the brigade FSO or FSCOORD to ensure that the FS plan is supportive of current brigade operations.	
4.9	Task: Cue: Product:	Takes action in conjunction with the S3 or the AVN LNO to ensure that army aviation employment supports brigade operations.	
4.10	Task: Cue: Product:	Directs the BSO to ensure brigade communications can support brigade operations to include status of retransmission capability and communications for and between CP locations.	
4.11	Task: Cue: Product:	Takes action in conjunction with the S1/S4 to ensure CSS can support brigade operations to include MP missions, CASEVAC system, supply priorities, critical personnel replacements and FSB Rear CP and BSA status.	

Execu	Execution		
4.12	Task: Cue: Product:	Anticipates requirements for, requests and coordinates employment of additional combat, combat support or CSS assets needed for support of brigade operations. Battlefield events and change in METT-T	
4.13	Task: Cue: Product:	Monitors passage of CSS units through passage lanes.	
4.14	Task: Cue: Product:	Directs the S3 to coordinate and control brigade rear area protection operations. Rear area threat	
5	Task: Cue: Product:	Directs the brigade staff during the planning process associated with the commander's decision to issue a FRAGO based on changes in METT-T. Brigade commander's decision to issue a FRAGO. Brigade FRAGO	
5.1	Task: Cue: Product:	Reviews the draft FRAGO, provides FRAGO to commander for approval, and directs the brigade S3 to issue the FRAGO.	

Mission Analysis

1	Task: Cue: Product:	Develops a brigade planning timeline that outlines the main events in the staff DMP and issues it to the brigade participants in the planning process for the current mission. Receipt of Division order Brigade planning timeline for all brigade DMP participants
2	Task: Cue: Product:	Receives guidance and CCIR from the brigade commander and relays to the staff.
3	Task: Cue: Product:	Gathers the staff to collect questions, and provide guidance.
4	Task: Cue: Product:	Discusses the enemy situation with the S2. [Sample Enemy COAs]
5	Task: Cue: Product:	Verifies that the IPB has been completed through step 4.

Mission Analysis

6 Task: Leads the staff in consolidating individual staff mission analysis results into the

products that define brigade mission analysis.

Cue: Brigade planning timeline for mission analysis

Product: Consolidated staff mission analysis information which includes: lists for brigade facts

and assumptions, specified and implied tasks, essential tasks, constraints and

restrictions, available assets and restated mission

7 Task: Provides guidance to staff and identifies brigade facts, assumptions, and limitations

that could lead to mission shortcomings.

Cue:

Product: [Sample Facts List] [Sample Assumptions List]

8 Task: Identifies specified, implied and essential tasks with the staff.

Cue:

Product: List of essential tasks [Sample Specified, Implied and Essential Tasks]

9 Task: Identifies essential tasks with the staff.

Cue:

Product:

10 Task: Modifies/approves the draft restated mission.

Cue: S3 submits draft of restated mission

Product: Draft restated mission [Sample Essential Tasks, Proposed Restated Mission and

Cdr's Intent]

Mission Analysis

11	Task: Cue: Product:	Reviews the mission analysis briefing presentations with individual staff members. Planning timeline Mission analysis briefing charts
12	Task: Cue: Product:	Directs the posting of the corps and division commander's mission and intent.
13	Task: Cue: Product:	Leads the mission analysis briefing to the brigade commander. Designated time for mission analysis briefing
14	Task: Cue: Product:	Receives the commander's decision and implements guidance through instructions to staff. Approved restated mission and other mission analysis products [Sample Essential Tasks, Proposed Restated Mission and Cdr's Intent]
15	Task: Cue: Product:	Modifies or approves draft brigade warning order and submits to brigade commander for final approval. Approved brigade warning order

COA Development

1	Task:	Analyzes the brigade commander's guidance and develops method for incorporating in COAs.
	Cue: Product:	Receives commander's guidance
	Product.	
2	Task:	Acts as the facilitator during the development of the brigade COAs by ensuring that each staff section is fully involved and is considering application of their own BOS/function.
	Cue:	Brigade planning timeline for COA development
	Product:	[Sample Friendly COAs]
3	Task:	Makes the final determination of whether the brigade COAs are suitable, distinguishable, complete, acceptable, and feasible prior to COA briefing to the commander.
	Cue:	
	Product:	
4	Task:	Receives commander's guidance as a result of COA brief and ensures
	_	implementation of guidance through staff.
	Cue: Product:	
	i roudot.	
_		
5	Task: Cue:	Ensures staff members clearly understand the COAs which will be wargamed.
	Product:	

COA Development

6 Task: Monitors S2's and S3's development of initial reconnaissance concept and taskings.

Cue:

Product:

Wargaming		
1	Task:	Directs the staff in preparing for wargaming by gathering all necessary information and materials including updated estimates, COA statements and sketches (tasks and purpose for each subordinate command, brigade main effort), synch matrix, critical event task list and action-reaction-counter action sheet. Brigade planning timeline for wargaming
	Product:	[Sample Synch Matrix]
1.1	Task: Cue:	Identifies friendly critical events in coordination with the S3.
	Product:	List of friendly critical events
1.2	Task: Cue: Product:	Recommends the wargaming method and recording technique to the brigade commander.
1.3	Task:	Determines evaluation criteria that will be used to measure relative effectiveness and efficiency of one COA relative to other COAs.
	Cue: Product:	List of evaluation criteria [Sample Decision Matrix]
2	Task:	Guides the staff during the wargaming process to ensure that significant issues are addressed.

Cue: Product:

War	Wargaming			
2.1	Task: Cue: Product:	Leads the staff during the wargaming so as to determine branches based on enemy successes, decision points, CCIR, HPT, NAI/TAI R&S plan information and other similar critical BOS related information. Synchronized plan [Sample DST]		
2.2	Task: Cue: Product:	Leads the staff in the continuous assessment during the wargaming to ensure COAs remain feasible, that risks are identified, that premature conclusions are not drawn and comparison of COAs is not done during wargaming.		
2.3	Task: Cue: Product:	Cues the recorder to capture wargaming actions, decisions and results. Completed synch matrix and notes on wargaming		
2.4	Task: Cue: Product:	Directs the S3 to update COA statements and overlays, DST/DSM and synchronization matrix. COA statement and sketch for all COA and completed DST/DSM. Completion of wargaming COA statement and sketch for all COA and completed DST/DSM and synchronization matrix.		
3	Task:	Insures early reconnaissance tasks are identified and planning for support of recon effort is ongoing.		

Product:

COA Comparison

1 Task:

Leads the staff in reviewing and updating evaluation criteria developed during wargaming based on: characteristics of operations, brigade commander's guidance,

battlefield framework, BOS considerations and risk.

Cue:

Product: Revised list of evaluation criteria and draft decision matrix

2 Task:

Leads the staff in completing the brigade decision matrix, comparing all selected

COA and noting any dissenting or modifying recommendations.

Cue:

Product: Brigade COA decision matrix [Sample Decision Matrix]

3 Task:

Leads the staff in determining the staff recommended COA.

Cue:

Product: Brigade staff recommended COA

4 Task:

Directs the staff in preparation for the decision briefing to the commander by stating

the briefing outline and schedule and ensures the S3 has prepared the necessary

charts and overlays.

Cue:

Product: Decision brief schedule and charts

5 Task:

Conducts the commander's decision brief and provides the commander a description

of each COA, gives an evaluation of each COA and briefs the staff recommended

COA.

Cue:

Product: Commander approved COA and guidance

COA Comparison

6 Receives the commander's decision, insures commander's intent and guidance is understood by staff. Insures staff has all decisions necessary to begin order Task:

preparation.

Cue:

Product:

7 Task: Approves warning order and submits to the brigade commander for his approval.

Cue:

Product: Approved warning order

Orders Prep

1 Directs the staff to complete coordination and planning necessary to implement Task:

approved COA and commander's guidance.

Cue: Brigade planning timeline for orders prep

Product: Coordinated and synchronized brigade OPORD

2 Task:

Provides guidance and timeline for brigade OPORD preparation to the staff members.

Cue:

Product:

2.1 Task: Receives the commander's intent statement from the brigade commander and

provides to the S3 to be included in paragraph 3 of the brigade order.

Cue:

Product: Commander's Intent statement

2.2 Directs the S3 to receive CCIR (PIR, EEFI, FFIR) from the commander and Task:

staff to be included in paragraph 3.d., "Execution: Coordinating Instructions," of the

brigade order.

Cue:

Product: Final CCIR

2.3 Task: Convenes the targeting team to coordinate and finalize targeting planning which

includes final HPT list, AGM information and TSS.

Cue:

Product: Final HPTL, AGM and TSS

Orde	Orders Prep		
2.4	Task: Cue: Product:	Directs the S3 to write base OPORD (5 paragraph) with input from appropriate staff officers. [Sample Brigade Order]	
2.5	Task: Cue: Product:	Assigns responsibilities for production of OPORD annexes: Annex A - S3, Annex B - S2, Annex C - S3, Annex D - ENGR, Annex F - FSO, Annex G - ADCOORD, Annex Q - S1/S4, Annex N - CHEMO, Annex I - S2.	
3	Task: Cue: Product:	Reviews all brigade order materials and annexes as they are prepared by the staff.	
4	Task: Cue: Product:	Reviews final draft brigade OPORD with the S3. Final draft OPORD and annexes	
5	Task: Cue: Product:	Submits the draft brigade OPORD to the brigade commander for review and approval.	

Orders Prep

6 Task: Reviews and approves the DST and synch matrix.

Cue:

Product: Final DST; synch matrix

7 Task:

Verifies that reconnaissance taskings support the CCIR and all aspects of support for

reconnaissance are provided.

Cue:

Product:

B Task:

Authorizes the reproduction of the brigade OPORD.

Cue:

Brigade commander's approval

Product:

Reh	Rehearsal		
1	Task: Cue: Product:	Prepares for the rehearsal by reviewing the synch matrix, the DST, the operations graphics, and the intelligence graphics. Brigade planning timeline for the rehearsal.	
2	Task: Cue: Product:	Directs the preparation and set up of the rehearsal following the dictates of the commander. Receives commander's guidance Prepared rehearsal site	
3	Task: Cue: Product:	Presents administrative information and the rehearsal agenda.	
4	Task: Cue: Product:	Directs the S3 to orient rehearsal participants to the terrain, read mission statement and to identify critical events. DST and synch matrix	

Identifies recorder to track staff input and record any staff changes or new requirements.

5

Task:

Cue: Product:

Rehearsal Directs the rehearsal participants to rehearse decision points and walk through the 6 Task: actions pertaining to each critical event. Cue: **Product:** 7 Verifies the synch matrix. Task: Cue: **Product:** Participates in the commander's review of the rehearsal to confirm significant 8 Task: changes or new requirements discussed during the rehearsal. Commander's review following the rehearsal Cue: Product: Notes concerning commander's guidance Directs the staff to develop plans to address new requirements or changes to the 9 Task: plan identified during the rehearsal. Cue: Product: Finalized input for brigade FRAGO With the commander's approval, issues a FRAGO or implementing instructions to the 10 Task: OPORD and annexes based on the rehearsal. Cue: Product: Brigade FRAGO

Exec	Execution		
1	Task: Cue: Product:	As the Main CP OIC, directs the brigade staff in the monitoring of the deep, close and rear battles according to the synch matrix, the DST/DSM and the brigade commander's guidance. Synchronized brigade operations	
1.1	Task: Cue: Product:	Periodically assesses the capabilities of the brigade. Situation reports; staff assessments	
1.2	Task: Cue: Product:	Directs efforts of battle captain in coordinating TOC operations.	
2	Task: Cue: Product:	Ensures the brigade staff is acquiring information according to the CCIR and other information necessary for synchronized operations. Information to satisfy CCIR	
2.1	Task: Cue: Product:	Confirms that all units are on proper radio nets.	

Exec	Execution		
2.2	Task: Cue: Product:	Checks readiness of units for DATK.	
2.3	Task: Cue: Product:	Monitors the movement of units after LD.	
2.4	Task: Cue: Product:	Ensures the S3 section reports on critical events in accordance with the DST as events occur.	
2.5	Task: Cue: Product:	Monitors the reconnaissance and surveillance operation.	
2.6	Task: Cue: Product:	Monitors adjacent unit progress and brigade's manning of contact points.	

Execution		
2.7	Task: Cue: Product:	Continuously monitors readiness status of subordinate units. Situation reports; status reports
2.8	Task: Cue: Product:	Monitors fire support, mobility, counter mobility and survivability, air defense, signal and CSS operations. Synch matrix, CCIR and battlefield events BOS situational awareness
3	Task: Cue: Product:	Directs the staff to communicate brigade battlefield information to include brigade status and situation to higher and adjacent units and brigade, division and adjacent unit information to subordinate units, brigade CPs, and the brigade commander and staff. Battlefield situation and reports.
3.1	Task: Cue: Product:	Ensures higher HQ is apprised of movement progress. Initiation of movement
3.2	Task: Cue:	Ensures the S2 section provides intelligence reports to the division in accordance with division collection plan and CCIR.

Product:

Exec	Execution		
3.3	Task: Cue: Product:	Ensures that the S2 disseminates intelligence updates to division, brigade commander, and subordinate units.	
3.4	Task: Cue: Product:	Informs brigade commander of unit capabilities.	
3.5	Task: Cue: Product:	Directs brigade staff elements in TAC, Main and Rear CPs to maintain current situation by monitoring the appropriate nets and posting maps and updating charts. Brigade CP situation awareness	
4	Task: Cue: Product:	Assists the brigade commander in the synchronization of the battle by coordinating with the brigade staff members and other CPs to ensure all brigade combat power is applied according to the concept of the operation, the DST/DSM and the synch matrix. Synchronized battle	
4.1	Task: Cue: Product:	Controls movement of units from AA to ATK to LD. Initiation of movement	

Exe	Execution		
4.2	Task:	Takes action, in conjunction with the brigade S2 and S3, to ensure that the brigade R&S plan is effective, to include observers assigned responsibility for targets/ NAI and in position, assets are reconstituted if lost, PIR are being satisfied and sufficient R&S assets are available to conduct rear area operations.	
	Cue: Product:		
4.3	Task:	Convenes the targeting team to coordinate brigade targeting to include identifying HPT and deep attack targets, assets to conduct the attack, and updating of the attack guidance and target selection standards.	
	Cue: Product:	Changes in METT-T and battlefield events Coordinated targeting plan for deep, close and rear operations	
4.4	Task: Cue: Product:	Direct the staff in coordinating execution of the brigade deep of battle, assessing results of the attacks and coordinating reattacks, as required. Synch matrix; DST	
4.5	Task: Cue: Product:	Coordinates with the CHEMO concerning MOPP status, smoke operations and decontamination requirements for brigade units.	
4.6	Task:	Coordinates with the brigade engineer to ensure conditions exist to reduce enemy obstacles and to employ SCATMINES and FASCAM.	

Cue: Product:

Exec	Execution		
4.7	Task: Cue: Product:	Takes action, in conjunction with the ADCOORD to ensure that Air Defense priorities and positioning support brigade operations.	
4.8	Task: Cue: Product:	Take action in conjunction with the brigade FSO or FSCOORD to ensure that the FS plan is supportive of current brigade operations.	
4.9	Task: Cue: Product:	Directs the BSO to ensure brigade communications can support brigade operations to include status of retransmission capability and communications for and between CP locations.	
4.10	Task: Cue: Product:	Takes action in conjunction with the S1/S4 to ensure CSS can support brigade operations to include MP missions, CASEVAC system, supply priorities, critical personnel replacements and FSB Rear CP and BSA status.	
4.11	Task: Cue: Product:	Anticipates requirements for, requests and coordinates employment of additional combat, combat support or CSS assets needed for support of brigade operations. Battlefield events and change in METT-T	

Exec	Execution		
4.12	Task: Cue: Product:	Directs the S3 to coordinate and control brigade rear area protection operations. Rear area threat	
4.13	Task: Cue: Product:	Keeps the brigade informed on the status of the aviation mission adjacent to the brigade's flank.	
5	Task: Cue: Product:	Directs the brigade staff during the planning process associated with the commander's decision to issue a FRAGO based on changes in METT-T. Brigade commander's decision to issue a FRAGO. Brigade FRAGO	
5.1	Task: Cue: Product:	Reviews draft FRAGO, provides FRAGO to commander for approval, and directs the brigade S3 to issue the FRAGO.	

APPENDIX B

ACRONYMS and ABBREVIATIONS

AA Assembly area AD Area defense

ADCOORD Air defense coordinator
AGM Attack guidance matrix
ARI Army Research Institute

ARTEP Army Training and Evaluation Program

ARTEP MTP Army Training and Evaluation Program Mission Training Plan

ATK Attack

AVN LNO Aviation Liaison Officer

BDE ENGR Brigade Engineer

BOS Battlefield Operating System

BSA Brigade support area CASEVAC Casualty Evacuation

CCIR Commander's Critical Information Requirements

CHEMO Chemical Officer
COA Course of action

COBRAS Combined Arms Operations at Brigade Level, Realistically Achieved through

Simulation

CP Command post

CSS Combat service support

DATK Deliberate attack

DDMP Deliberate decision making process

DMP Decision making process
DSM Decision support matrix
DST Decision support template

EEFI Essential elements of friendly information

FASCAM Family of scatterable mines

FFIR Friendly force information requirements

FRAGO Fragmentary order

FSB Forward support battalion

FSB Cdr Forward support battalion commander

FSCOORD Fire support coordinator FSO Fire support officer

FXXITP Force XXI Training Program

HPT High payoff target HQ Headquarters

IPB Intelligence Preparation of the Battlefield

LD Line of departure

MDMP Modified decision making process

METT-T Mission, enemy, terrain and weather, troops, time available

MI Co Cdr Military Intelligence company commander

ModSPA Modified Staff Performance Analysis
MOPP Mission oriented protective posture

MP Military Police

MP PLT LDR Military Police Platoon Leader

MTC Movement to contact
MTP Mission Training Plan
NAI Named area of interest

NBC Nuclear, biological, and chemical

OIC Officer in charge OPORD Operations order

PIR Priority intelligence requirement R&S Reconnaissance and surveillance

RFI Request for Information

S1 Adjutant

S2 Intelligence officer
S3 Operations officer
S4 Logistics officer
SIGO Signal officer

SME Subject matter expert SPA Staff Performance Analysis

T&EO Training and Evaluation Outline

TAC Tactical Command Post
TAI Target area of interest
TOC Tactical operations center
TSP Training support package
TSS Target selection standards

TTP Tactics, techniques, and procedures VBTP Virtual Brigade Training Program

XO Executive officer